PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

March 20, 2019 GI-2019-01-SEM-40-03

Mr. Rodger Schwecke, Senior Vice President
Gas Transmission, Storage & Engineering
Southern California Gas Company
555 West 5th Street, GT21C3
Los Angeles, CA 90013

SUBJECT: General Order 112-F **Comprehensive Gas Inspection of** Southern California Gas Company's and San Diego Gas and Electric Company's **Operation and Maintenance Procedures**

Dear Mr. Schwecke:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a General Order 112-F Comprehensive Review and Inspection of Sempra's Operation and Maintenance (O&M) Procedures that included the Southern California Gas Company's (SCG) Gas Standards and Procedures and San Diego Gas and Electric Company's (SDG&E) Gas Standards and Procedures on January 7 through 18, 2019. SED staff reviewed both companies' written O&M procedures pursuant to G.O. 112-F, Reference Title 49, Code of Federal Regulations (CFR), Parts 191, 192 and 193.

SED's staff noted two probable violations and four concerns. The probable violations and the concerns are noted in the attached "Post-Inspection Written Preliminary Findings".

Within 30 days of your receipt of this letter, please provide a written response indicating the measures taken by SCG and SDG&E to address the violations and concerns noted in the Post-Inspection Written Preliminary Findings.

If you have any questions, please contact Mahmoud (Steve) Intably at (213) 576-7016 or by email at mai@cpuc.ca.gov.

Sincerely,

Kenneth A. Bruno

Kenneth Bruno
Program Manager
Gas Safety and Reliability Branch
Safety and Enforcement Division

cc: Troy Bauer, Sempra Energy Utilities
Mahmoud Intably, SED
Kan-Wai Tong, SED
Claudia Almengor, SED

Post-Inspection Written Preliminary Findings

Date of Transmittal: 03/12/2019

Dates of Inspection: January 7 through January 18, 2019

Operator: SOUTHERN CALIFORNIA GAS CO. & SAN DIEGO GAS AND ELECTRIC

Operator IDs: 18484 and 18112

Inspection Systems: Comprehensive Gas Inspection (operation and maintenance)

Assets (Unit IDs): 88389, 88388, 88390, and 88391

System Type: GT & GD

Inspection Name: 2019 Sempra's Procedures Transmission & Distribution

Lead Inspector: Mahmoud (Steve) Intably

Operator Representative: Khoa Le

Unsatisfactory Results

Violations

Time-Dependent Threats: External Corrosion - CP Monitoring (TD.CPMONITOR)

1. Question **Does the process adequately describe how to monitor CP that has been applied to pipelines?**

References 192.605(b)(2) (192.465(a))

Assets Covered 88390, 88391 (SCG and SDG&E)

Issue Summary PHMSA Interpretation #PI-71-088
December 20, 1971 - Monitoring tests of "hot spot" protected sections of electrically continuous pipelines must be made each year.

I. SCG's Gas Standard 186.0005 Cathodic Protection -Mixed Piping System, Section 5.4.3.7 Isolated Services tied to Non-CP mains states, “Each plastic service installed as a new installation or as a result of replacement on a non-cp main, shall have a hot spot 17# anode installed on the main near the service to main connection.” SCG's Gas Standard did not require monitoring tests of “hot spot” “at least once each calendar year, but with intervals not exceeding 15 months” to determine whether the cathodic protection meets the requirements of §192.463. Therefore, SCG and SDG&E are in violation of G.O. 112-F, Reference

Title 49 CFR, Part 192, Section 192.465(a). See PHMSA Interpretation #PI-71-088 December 20, 1971.

II. SCG's Gas Standard 184.0225 Leak Repair Methods for Distribution Steel Pipelines, Section 1.6 states, "Hot spot cathodic protection shall be applied to existing non-cathodically protected buried or submerged metallic gas piping whenever an external corrosion leak is repaired or external corrosion without leakage requires repair" and Section 4.5 Pipe Repair Clamp-Installation, Sub Section 4.5.6 states, "When leakage is found on a main that is not cathodically protected, install hot spot cathodic protection using either a 17# or a 32# anode". SCG's Gas Standard did not require monitoring tests of "hot spot" "at least once each calendar year, but with intervals not exceeding 15 months" to determine whether the cathodic protection meets the requirements of §192.463. Therefore, SCG and SDG&E are in violation of G.O. 112-F, Reference Title 49 CFR, Part 192 Section 192.465(a). See PHMSA Interpretation #PI-71-088 December 20, 1971.

2. Question : What general requirements apply to pipelines regulated under this part?

References 192.13(c)

Assets Covered 88390, 88391 (SCG and SDG&E)

Issue Summary SED noted that Gas Standard PP01.002 Management of Company operation standard, Section 1.1 states, " Five Years Life Cycle - The Time-Frame established by the Company by which all Company Operations Standards are periodically reviewed for accuracy and compliance." SED found that the following Gas Standards missed their "Five Years Life Cycle" review:

- 223.0330 Main Centrifugal Gas Compressor Unit Maintenance
- 182.0130 Steel Service Design 61-1000 PSIG
- 182.0125 Steel Service Design - 60 PSIG or Less
- 166.0077Confined Space Operations
- 223.0400 Gas Detectors in Compressor Station
- 182.0030 Aboveground Storage Tanks
- 186.06 Cathodic Protection - Electrical Isolation

Therefore, SCG and SDG&E are in violation of G.O. 112-F, Reference Title 49 CFR, Part 192, Section 192.13(c)

Concerns

Design and Construction: Design of Pipe Components (DC.DPC)

1. Question As applicable to the project, does the process require that vaults and valve pits are designed in accordance with 192.183?

References 192.143(a) (192.143(b), 192.183(a), 192.183(b), 192.183(c))

Assets Covered 88389, 88388 (SCG and SDG&E)

Issue Summary SCG Gas Standard MSP 76-94 Vault, Prefabricated, Concrete, Section 4.1.1, states, "The vault and covers shall also meet the LACDPW S-601-2 requirements for concrete vaults and covers intended for use in pedestrian traffic areas".

SCG Gas Standard MSP 76-94.2 Vault, Prefabricated, Non-Concrete, Section 4.1, states, "The vault body and cover shall meet Federal and State requirements and the requirements of the City of Los Angeles Department of Public Works and the latest edition of Standard Plan S-601-2".

City of Los Angeles Department of Public Works, Standard Plan S-601-3, "Handholes, Maintenance Hole Covers and Frames, Detectable Warning Surface, Tree Well Covers, Pavers and Similar Installations", revised on September 9, 2008, supersedes Standard Plan S-601-2.

SED recommends that SCG review/revise its Gas Standards MSP 76-94 and MSP 76-94.2 to reference the latest edition of Standard Plan S-601 which is S-601-3.

2. Question Generic Questions: Generic Questions (GENERIC.GENERIC)

Assets Covered 88389, 88388 (SCG and SDG&E)

Issue Summary SED noted that Gas Standard 3222, *Design Data Sheet (DDS*), Section 3.5.1 states, "The Approver must be a knowledgeable and trained engineer, capable of confirming the validity of the selection of all components listed on the DDS. See Table 1 for typical Approvers for each organization".

On November 14, 2018, National Transportation Safety Board released their Safety Recommendation Report, *Natural Gas Distribution System Project Development and Review (Urgent)*, regarding the Merrimack Valley incident on September 13, 2018. In its Engineering Work Package Approval Process section, the report states in part, "The seal of a PE should be required on all public utility engineering plans to reduce the likelihood of accidents…". To NiSource, Inc., the corporation Columbia Gas was a subsidiary, NTSB made a safety recommendation stating, "revise the engineering plan and constructability review process [...] to ensure [...] accuracy, completeness, and correctness, and that the documents or plans be sealed by a professional engineer ... (P-18- 006)". Following this recommendation, NiSource, Inc. stated in a response to NTSB on December 14, 2018 that they would comply with and follow NTSB's recommendation regarding sealing relevant construction documents with a professional engineer's seal.

Similar to the Commonwealth of Massachusetts' exemption in their state's licensing laws regarding PE approval for industrial, public utility, and other purposes, the State of California maintains exemptions regarding PE approval for industrial and utility work in the state. The California Business and Professions Code, Section 6704.(a), Defines who may use engineer titles, "In order to safeguard life, health, property, and public welfare, no person shall practice civil, electrical, or mechanical engineering unless appropriately licensed or specifically exempt from licensure under this chapter, and only persons

licensed under this chapter shall be entitled to take and use the titles consulting engineer, professional engineer, or registered engineer…". As a result of the incident, NTSB issued a safety recommendation in their Safety Recommendation Report to "eliminate the professional engineer licensure exemption for public utility work and require a professional engineer's seal on public utility engineering drawings. (P-18-005)".

While the current text of the State of California's licensure law maintains the aforementioned exemption in the California Business and Profession Code, SED recommends that SCG consider the recent Merrimack Valley NTSB Safety Recommendation Report and its findings in augmenting and enhancing design safety oversight in SCG's future engineering planning.

Maintenance and Operations: Gas Pipeline Operations (MO.GO)

3. Question **Does the process include requirements for periodically reviewing the work done by operator personnel to determine the effectiveness, and adequacy of the processes used in normal operations and maintenance and modifying the processes when deficiencies are found?**

References 192.605(a) (192.605(b)(8))

Assets Covered 88390, 88391 (SCG and SDG&E)

Issue Summary

I. SED noted that SDG&E failed to provide procedures to determine the effectiveness, and adequacy of the processes for activities other than leak survey when reviewing work for company and contractor personnel. SED recommends that SDG&E review/revise its Gas Standards to include a process for periodic review of the work done by company personnel and contractor.

II. SED noted that Gas Standards 203.016 and D8168 are applicable to leak survey's quality assurance. Gas Standard 203.016, Section 4.2 has a minimum required amount of footage for the QA person to check while Gas Standard D8168 did not specify a minimum amount of footage for the OA person to check. SED recommends that SDG&E to review/revise its Gas Standard to clearly specify the minimum amount of footages for the QA person to check.

III. SED noted that Gas Standard 184.0200, Section 2.11 and Gas Standard G8123, Section 2.8 talks about periodically reviewing the performance of company or contractor employees based on certain criteria which were not clear to SED during this inspection. The minimum sampling rate nor the inspection frequency of their work was provided to SED. SED recommends that SCG and SDG&E to establish a minimum frequency to review an employee/contractor's performance.

4. Question **Generic Questions: Generic Questions (GENERIC.GENERIC)**

I. SED noted that the last page in some of the SCG's Gas Standards under "Document Profile Summary" had "Last Full Review Completed On" and "Last O&M Review Date" were not updated to reflect the actual date the Gas Standards reviewed. SED recommends SCG to review the Gas Standards and update the dates in "Document Profile Summary".

II. SED noted that some of the SCG's Gas Standards had references to the previous General Order and did not reference the current General Order 112-F. SED recommends SCG to apply references to the current G.O. where applicable.

III. SED noted that Gas Standards 184.0275 and T8172 are applicable to both the transmission and distribution groups but only T8172 references Maximo. SED recommends that SCG review/revise Gas Standard 184.0275 to reference Maximo.